

DIFFUSION BARRIERS
FORMED BY LOW TEMPERATURE DEPOSITION

ABSTRACT OF THE DISCLOSURE

5 A solid state device includes a first material and a
second material. A barrier layer is formed between the
first material and the second material to prevent diffusion
between the first material and the second material. The
barrier layer includes a metal form of at least one of Ru
10 and Re. The barrier layer is preferably formed using a low
temperature deposition process, where the substrate is less
than 400 degrees C.